

5

## CLAIMS

1. A method for deproteinizing chitosan, comprising the steps of:
  - 10 a) reacting an acidic solution of chitosan, said chitosan containing proteins  $\geq 0.001$  wt%, with an aqueous base to precipitate microcrystalline chitosan; and
  - 15 b) separating said precipitated microcrystalline chitosan from dissolved proteins to produce a microcrystalline chitosan having a protein content  $\leq 10$  ppm.
2. A method according to claim 1, wherein said acidic solution of chitosan comprises an acid selected from the group consisting of hydrochloric acid, acetic acid and  
20 lactic acid.
3. A method according to claim 1, wherein said aqueous base is selected from the group consisting of sodium hydroxide, potassium hydroxide, sodium carbonate, and potassium carbonate.  
25
4. A method according to claim 1, wherein said reacting step is carried out at  $6.0 \leq \text{pH} \leq 6.5$ .
5. A method according to claim 1, wherein said reacting step further comprises  
30 adding a first aqueous basic solution to reach  $6.0 \leq \text{pH} \leq 6.5$  and then adding a second aqueous basic solution, wherein the concentration ratio of alkali in said first aqueous basic solution to said second aqueous basic solution is between 1: 0.1 to 1: 0.9.
- 35 6. A method according to claim 1, wherein said separating step is carried out using a method selected from the group consisting of filtration, ultrafiltration, sedimentation and centrifugation.
- 40 7. A composition of matter, comprising a chitosan prepared according to a method according to claim 1.